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EXAMINER

FOX, CHARLES A

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**BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES**

MAILED

NOV 03 2004

Application Number: 09/844,876
Filing Date: April 27, 2001
Appellant(s): UNGETHEIM ET AL.

GROUP 3600

Paul F. Wille
For Appellant

EXAMINER'S ANSWER

This is in response to the appeal brief filed July 26, 2004.

(1) *Real Party in Interest*

A statement identifying the real party in interest is contained in the brief.

(2) *Related Appeals and Interferences*

A statement identifying the related appeals and interferences which will directly affect or be directly affected by or have a bearing on the decision in the pending appeal is contained in the brief.

(3) *Status of Claims*

The statement of the status of the claims contained in the brief was correct as of the filing date of the brief. Appellants arguments regarding claim 10 were persuasive. The rejection of claim 10 has been withdrawn and the claim is now objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

A correct statement of the status of the claims is as follows:

This appeal involves claims 2,4-9 and 11.

(4) *Status of Amendments After Final*

The appellant's statement of the status of amendments after final rejection contained in the brief is correct.

(5) *Summary of Invention*

The summary of invention contained in the brief is correct.

(6) *Issues*

The appellant's statement of the issues in the brief is correct.

(7) Grouping of Claims

Appellant's brief includes a statement that claims 2, and 11 do not stand or fall together and provides reasons as set forth in 37 CFR 1.192(c)(7) and (c)(8). However arguments have not been set forth for all groups of claims proposed by the appellant. The claims will be grouped as follows claim 11, claims 2,4,6 stand or fall together and claims 5,7,8,9 stand or fall together for the purposes of appeal.

(8) Claims Appealed

The copy of the appealed claims contained in the Appendix to the brief is correct.

(9) Prior Art of Record

(9) Prior Art of Record

5,542,811	Vartanian	8-1996
5,612,515	Eisen	3-1997
6,081,086	Roth-Stielow et al.	6-2000
6,179,545	Petersen, Jr. et al.	1-2001
5,871,329	Tidrick et al.	2-1999

(10) Grounds of Rejection

The following ground(s) of rejection are applicable to the appealed claims:

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claim 11 is rejected under 35 U.S.C. 103(a) as being unpatentable over Petersen, Jr in view of Eisen. Petersen, Jr. et al. (herein Petersen) US 6,179,545 teaches a vehicular ramp adapted for wheelchair access to said vehicle, said ramp comprising:

a drive mechanism (18) located below the floor of said vehicle;

a rotor shaft (70) parallel with the hinge (16) to said ramp;

a pair of arms (28) coupled to said rotor shaft;

said ramp includes a bracket (30) on each side;

said drive mechanism includes a pair of shafts (not numbered) coupling the arms (28) to the brackets (30), whereby rotation of the rotor shaft causes rotation of the ramp about said hinge (16). Petersen does not teach the drive assembly as being below the hinge of the folding ramp. Eisen US 5,612,515 teaches a ramp assembly comprising:

a base assembly (12);

a ramp assembly (14) that is foldable relative to said base assembly;

wherein said base assembly comprises:

an electric motor (68);
a rotor shaft (64) with arms (62) attached;
rods (83) attached to said arms wherein said rods are located below the
hinge (66) that the ramp (14) pivots about.

brackets (56) on said ramp;
wherein said brackets are attached to said rods (83) to cause rotation of the ramp when
rotor shaft (64) is moved. It would have been obvious to one of ordinary skill in the art,
at the time of invention to provide the device taught by Petersen with an actuation
assembly as taught by Eisen in order to allow the ramp to be folded mechanically while
keeping the moving part covered, thereby preventing the device from injuring anyone
near the device.

Claim 2,4 and 6 are rejected under 35 U.S.C. 103(a) as being unpatentable over
Petersen in view of Eisen as applied to claim 11 above, and further in view of Vartanian.
In regards to claim 2 Petersen in view of Eisen teach the limitations of claim 11 as
above, they further teach the drive mechanism can be an electric motor, Petersen does
not teach using a gear motor to drive their mechanism. Vartanian US 5,542,811
teaches a wheelchair lift for vehicles that is driven by a gear motor (138). It would have
been obvious to one of ordinary skill in the art, at the time of invention to provide the
device taught by Petersen with a gear motor as taught by Vartanian in order to increase
the torque of the drive motor without increasing the size of the motor, thereby allowing a
smaller motor to lift a heavier load.

In regards to claim 4 Petersen discloses a sensor (48) that signals the power to the drive mechanism be stopped once the ramp has reached a predetermined position during deployment. See column 7 lines 29-47.

In regards to claim 6 Petersen also discloses the rotor shaft is supported by a pair of bearings (62).

Claims 5 & 7-9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Petersen, Eisen and Vartanian as applied to claims 2 and 4 above, and further in view of Roth-Stielow et al. Petersen, Eisen and Vartanian teaches the limitations of claims 2 and 4 above, they also teach using a resistive load to brake the fall of the ramp during deployment. They do not teach using a heat dissipating load to brake the movement of the ramp. Roth-Stielow et al. US 6,081,086 teaches an apparatus for electrically braking a motor comprising:

- a heat dissipating load in the form of a braking resistor (3);

- a switch (21) for switching current from said motor to said braking system.

It would have been obvious to one of ordinary skill in the art, at the time of invention to provide the apparatus taught by Petersen, Eisen and Vartanian with the braking system taught by Roth-Stielow et al. in order to brake the ramp using a well know technology (resistive braking) in such a manner that installation and manufacturing cost can be reduced as well as protecting the overall system from thermal damage by releasing the heat generated to the ambient surroundings.

(11) Response to Argument

Regarding applicant arguments relating to the intended use of the device in a minivan and what can be considered analogous art the examiner disagrees with the appellant. The intended use of the instant invention is in a minivan, but no structure for that van is claimed or needed for the structure as claimed to operate. The instant invention is drawn to a ramp structure for allowing a wheelchair to access a vehicle, not the vehicle itself. As the references as listed above all deal with either ramps for wheel chairs or resistive braking they are deemed to be analogous art in regards to the instant invention.

Regarding the argument on page 5 that the Petersen reference does not disclose a folding ramp, the appellant is directed to figure 1 in that reference. Here the ramp taught by Petersen is comprised of a platform (12) and a movable section (14) wherein the movable section is attached to the platform via a hinge (16). Thus the movable section (14) does fold up and over the platform (12), meeting the limitation of the claim.

The arguments against the combination of the Petersen and Eisen references bridging pages 5 and 6 is presented in section 1-4 which are answered as follows. As to point 1 the art the examiner searched when examining this application all related to ramps for wheelchairs or resistive braking. Both Petersen and Eisen are related to folding structures for allowing a wheelchair bound person access to some other device, thus one of ordinary skill in the art of wheelchair access to public spaces would have looked to either reference for teachings on wheelchair related access ramps.

In regards to points 2 and 4 the examiner did not think about users or providers during the examination of this application as thought by the appellant. The person of ordinary skill envisioned by the examiner is a person more closely aligned with what the appellant terms a provider as that person has a basic working knowledge of how wheel chair ramps operate. The user on the other hand may or may not have any idea as to the inner working of a wheelchair ramp. The Eisen patent was cited to show a wheel chair ramp with a cover, which the appellant agrees is well known in the art, and is also taught by Tidrick. Thus one of ordinary skill in the art looking for a means to cover the moving parts of a wheelchair ramp would look to the Eisen reference as a teaching.

Regarding point 3 it is true that a bus, hospital scale and a minivan have different problems, but the problem being addressed by the applicant is a wheel chair ramp for a vehicle. It is noted that the Petersen reference is not restricted to use on a bus. The arguments are not persuasive and the examiner stand behind the final rejection of claim 11.

Regarding the arguments against the rejection of claims 2,4 and 6 by the addition of the Vartanian reference to the Petersen and Eisen references the appellant is not persuasive. The use of the gear motor taught by Vartanian is in response to the limitations of claim 2 where the drive mechanism is said to include a reduction gear coupled to the output shaft of the drive and a output shaft coupled to the reduction gear, and a drive shaft coupled to the output shaft. A gear motor meets this limitation as a gear motor is used to increase the output torque of a motor by transmitting the output of the motor through a reduction gear train, thus slowing the speed of the output of the

gear motor while increasing its torque. The use of such a gear motor would allow one to use a smaller motor to achieve the torque needed to move the ramp, which would be seen as advantageous to a person looking to minimize the space taken up by a device. Regarding the question as to why the linear drive was not used, the answer is it does not meet the limitations of claim 2. The linear drive taught by Vartanian does not increase torque in any manner, rather it takes the input rotational motion of a screw and converts that motion into a linear thrust for the nut. There is no increase in torque or any reduction in speed dependent upon the interaction of the screw and the nut, but rather upon the input provided by the gear motor. In regards to the Vartanian reference not teaching a reduction gear the examiner acknowledges this fact, but counters that it is well known to use gear motors to reduce the speed of a motor's output shaft, and that one of ordinary skill in the art would be knowledgeable as to how a gear motor works. Thus a smaller gear motor can provide the output of a larger direct drive motor, which is why our ordinary provider of wheel chair ramps would look to the Vartanian reference when designing a drive for a wheel chair ramp in a limited space.

Regarding the term "regenerative braking" in the rejection of claims 5 and 7-9 the examiner erred in the final rejection. The term should have been resistive braking as described by Roth-Stielow, as this term is not part of the actual rejection it has no bearing on the rejection of the claims. The term has been corrected in this action to accurately reflect the content of the Roth-Stielow reference, but in no way changes the grounds for rejection of claim 5 and 7-9.

Regarding the arguments for claim 5 the applicant is arguing limitation from the specification and not the claim itself. While the specification is used as a guide in examining the application, only limitations found in the claims are examined. Claim 5 very broadly claims a switch and a heat dissipating load for allowing dynamic braking of the device. The Roth-Stielow device very clearly shows a device having those very limitations. As it stands the rejections are deemed to be sound by the examiner.

Regarding the arguments for the limitations found in claim 10 the examiner has withdrawn the rejections of this claim as outlined above.

For the above reasons, it is believed that the rejections should be sustained.

Respectfully submitted,



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November 1, 2004

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